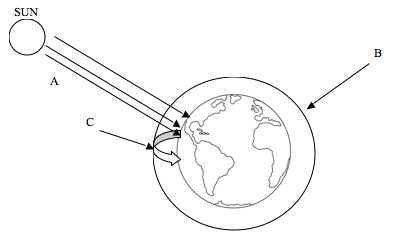
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_ odd / even

**Chapter 4: Ecosystems and Communities – Study Guide – 25 Points**

1. Describe the difference between weather and climate.
2. What is a microclimate? Give an example. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Describe the greenhouse effect.
4. Is the greenhouse effect a good thing? Explain.
5. Label the diagram with the following terms:

Solar Radiation Atmosphere Infrared Radiation (heat)

1. What are the 6 greenhouse gasses? Which comes from agriculture? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What causes seasons on earth?
3. What are two ways in which heat is transferred around earth? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Describe a niche.
5. Why don’t organism want to compete? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. How can organisms limit competition? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. What is the competitive exclusion principle?
8. Describe a keystone species.
9. Describe how wolves act as a keystone species in Yellowstone National Park.
10. What is symbiosis?
11. Describe mutualism and give an example.
12. Describe commensalism and give an example.
13. What is pollination? What type of symbiosis does it fall under? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. A species of deer rely on monkeys in the tree above them to warn of danger. What type of symbiosis could this be considered and WHY?
15. A tapeworm would be an example of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
16. What is succession?
17. Describe primary succession.
18. What are the hardy plants found at the beginning of succession? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
19. Give two examples of occurrences that can cause primary succession?

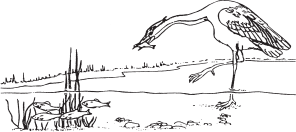
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Describe secondary succession.
2. Give two examples of occurrences that can cause secondary succession to occur?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Primary succession can take \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of years, while secondary succession takes about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ years.
2. What is a biome?
3. Which biome has the most biodiversity? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The least? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Which would you expect to receive more rainfall, a forest or a grassland? Explain.

**Practice Test Questions:**

1. An organism’s niche is
   1. the range of physical and biological conditions in which an organism lives and the way it obtains what it needs to survive and reproduce.
   2. all the physical and biological factors in the organism’s environment.
   3. the range of temperatures that the organism needs to survive.
   4. a full description of the place an organism lives.
2. **.** What would likely happen if the population of the bird species shown in the ecosystem in Figure 4–1 were to suddenly decrease?
   1. The fish population would decrease.
   2. The fish population would increase.
   3. The fish population would remain the same.
   4. Fish would leave the ecosystem.
3. What is one difference between primary and secondary succession?
   1. Primary succession is rapid and secondary succession is slow.
   2. Secondary succession begins on soil and primary succession begins on newly exposed surfaces.
   3. Primary succession modifies the environment and secondary succession does not.
   4. Secondary succession begins with lichens and primary succession begins with trees.
4. A tropical rain forest may not return to its original climax community after which of the following disturbances?
   1. burning of a forest fire
   2. volcanic eruption
   3. clearing and farming
   4. flooding after a hurricane
5. A keystone species is one that
   1. eats a mixture of plants and animals.
   2. is introduced into a community after a major disturbance.
   3. causes the amount of diversity in a community to decrease.
   4. helps to stabilize the populations of other species in the community.
6. How does an area’s weather differ from the area’s climate?
   1. Weather involves temperature and precipitation and climate involves only temperature.
   2. An area’s weather depends on where it is located on Earth and the area’s climate does not.
   3. An area’s weather does not change very much and an area’s climate changes many times.
   4. Weather is the area’s day-to-day conditions and climate is the area’s average conditions.
7. No two species can occupy the same niche in the same habitat at the same time
   1. because of the interactions that shape the ecosystem.
   2. unless the species require different abiotic factors.
   3. because of the competitive exclusion principle.
   4. unless the species require different biotic factors.